

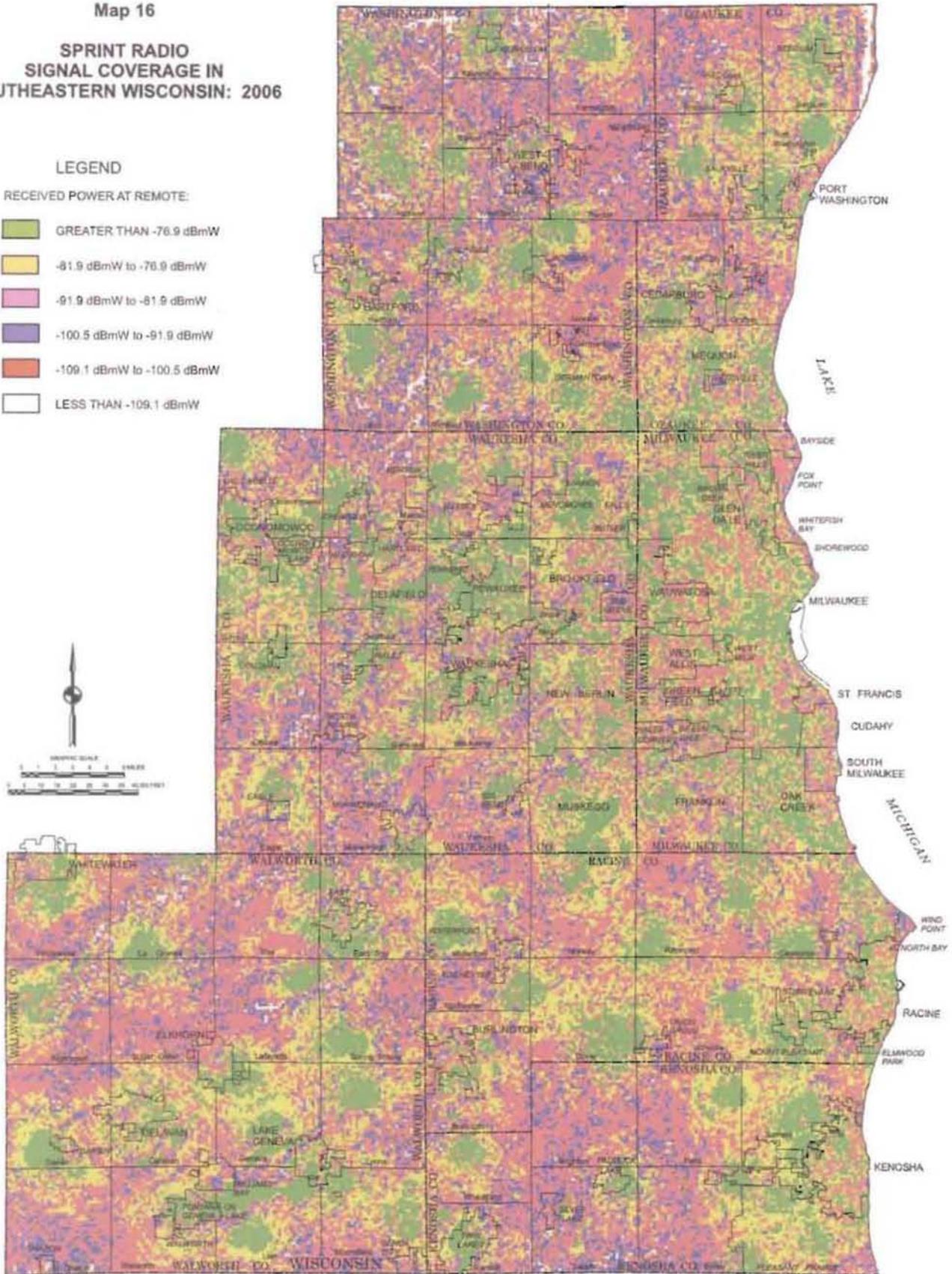
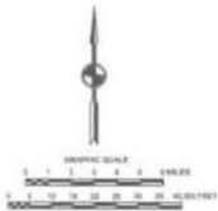
Map 16

**SPRINT RADIO
SIGNAL COVERAGE IN
SOUTHEASTERN WISCONSIN: 2006**

LEGEND

RECEIVED POWER AT REMOTE:

- GREATER THAN -76.9 dBmW
- 81.9 dBmW to -76.9 dBmW
- 91.9 dBmW to -81.9 dBmW
- 100.5 dBmW to -91.9 dBmW
- 109.1 dBmW to -100.5 dBmW
- LESS THAN -109.1 dBmW



ILLINOIS

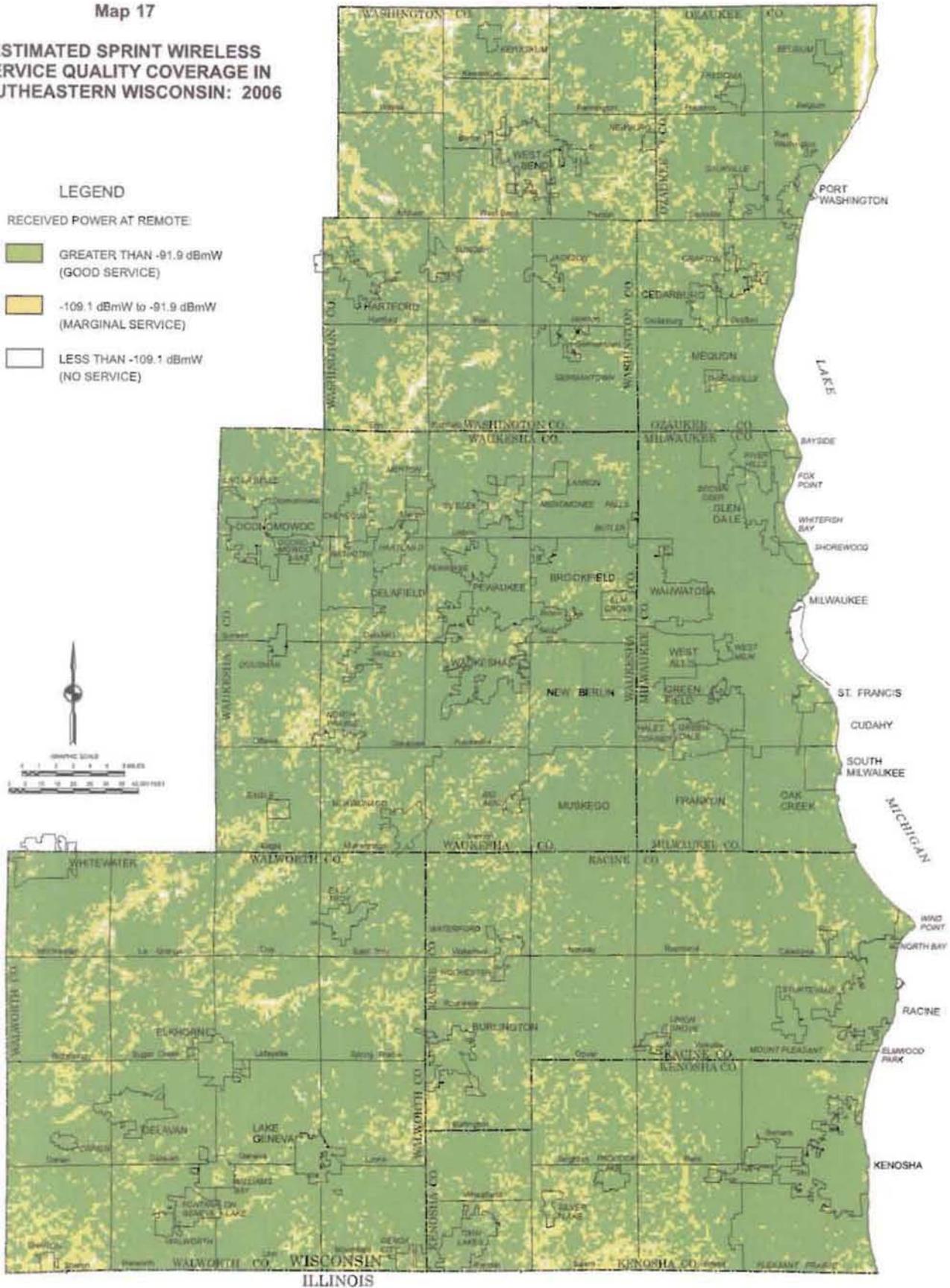
Map 17

ESTIMATED SPRINT WIRELESS SERVICE QUALITY COVERAGE IN SOUTHEASTERN WISCONSIN: 2006

LEGEND

RECEIVED POWER AT REMOTE:

- GREATER THAN -91.9 dBmW (GOOD SERVICE)
- 109.1 dBmW to -91.9 dBmW (MARGINAL SERVICE)
- LESS THAN -109.1 dBmW (NO SERVICE)



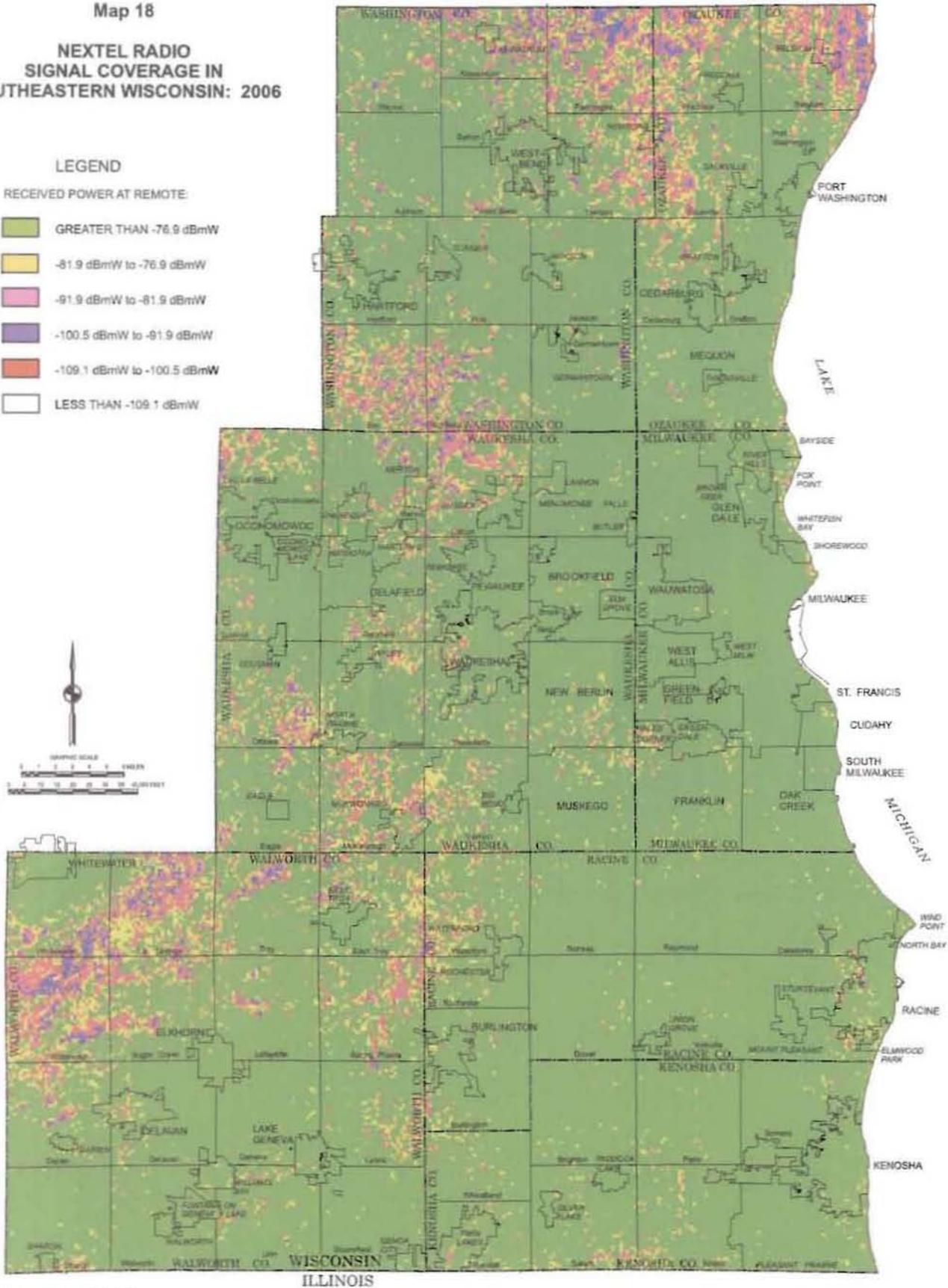
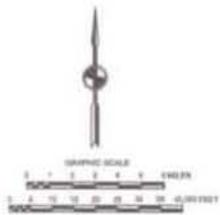
Map 18

**NEXTEL RADIO
SIGNAL COVERAGE IN
SOUTHEASTERN WISCONSIN: 2006**

LEGEND

RECEIVED POWER AT REMOTE

-  GREATER THAN -76.9 dBmW
-  -81.9 dBmW to -76.9 dBmW
-  -91.9 dBmW to -81.9 dBmW
-  -100.5 dBmW to -91.9 dBmW
-  -109.1 dBmW to -100.5 dBmW
-  LESS THAN -109.1 dBmW



Source: SEWRPC.

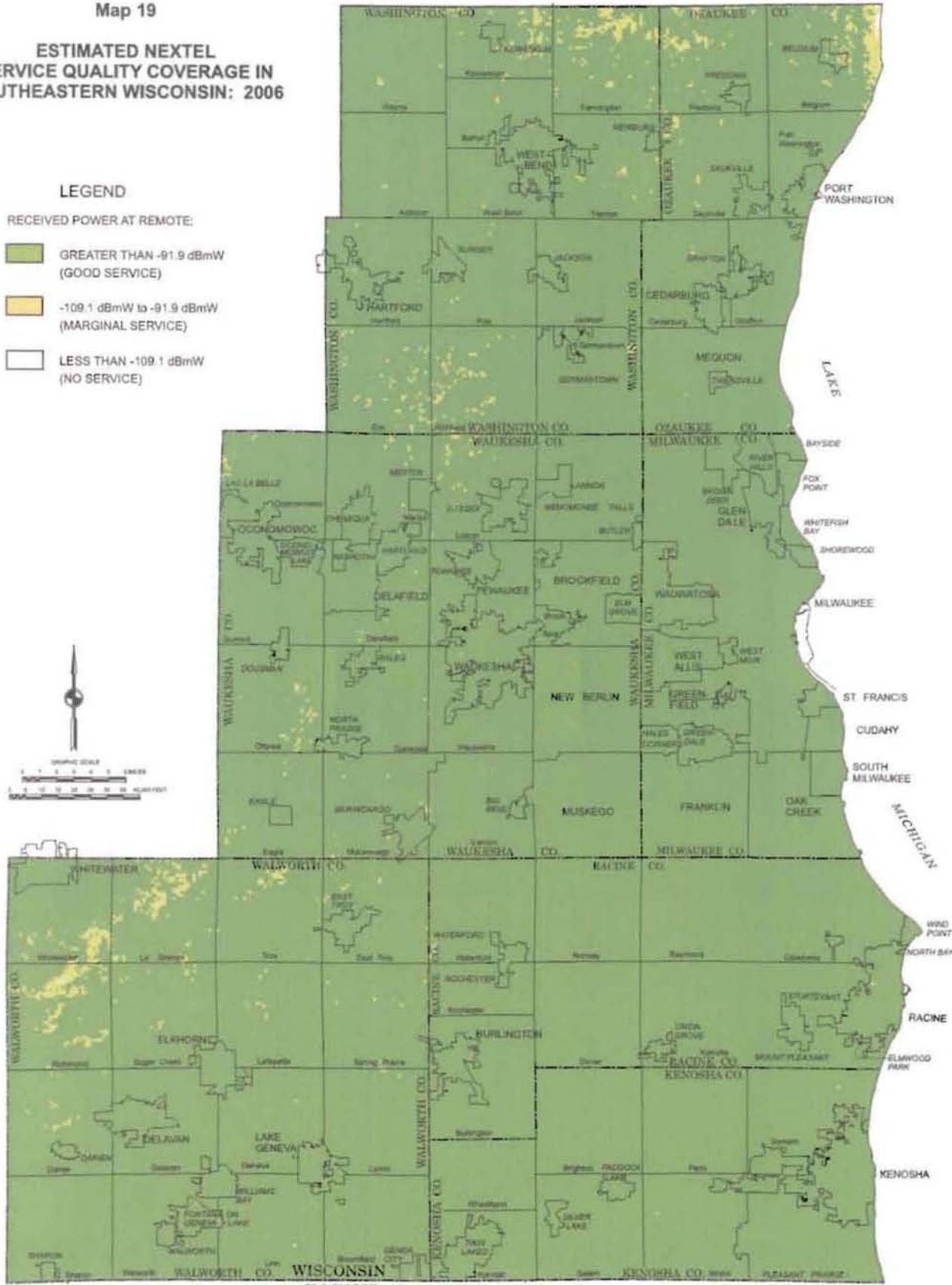
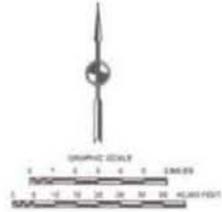
Map 19

**ESTIMATED NEXTEL
SERVICE QUALITY COVERAGE IN
SOUTHEASTERN WISCONSIN: 2006**

LEGEND

RECEIVED POWER AT REMOTE:

-  GREATER THAN -91.9 dBmW
(GOOD SERVICE)
-  -109.1 dBmW to -91.9 dBmW
(MARGINAL SERVICE)
-  LESS THAN -109.1 dBmW
(NO SERVICE)



Source: SEWRPC.

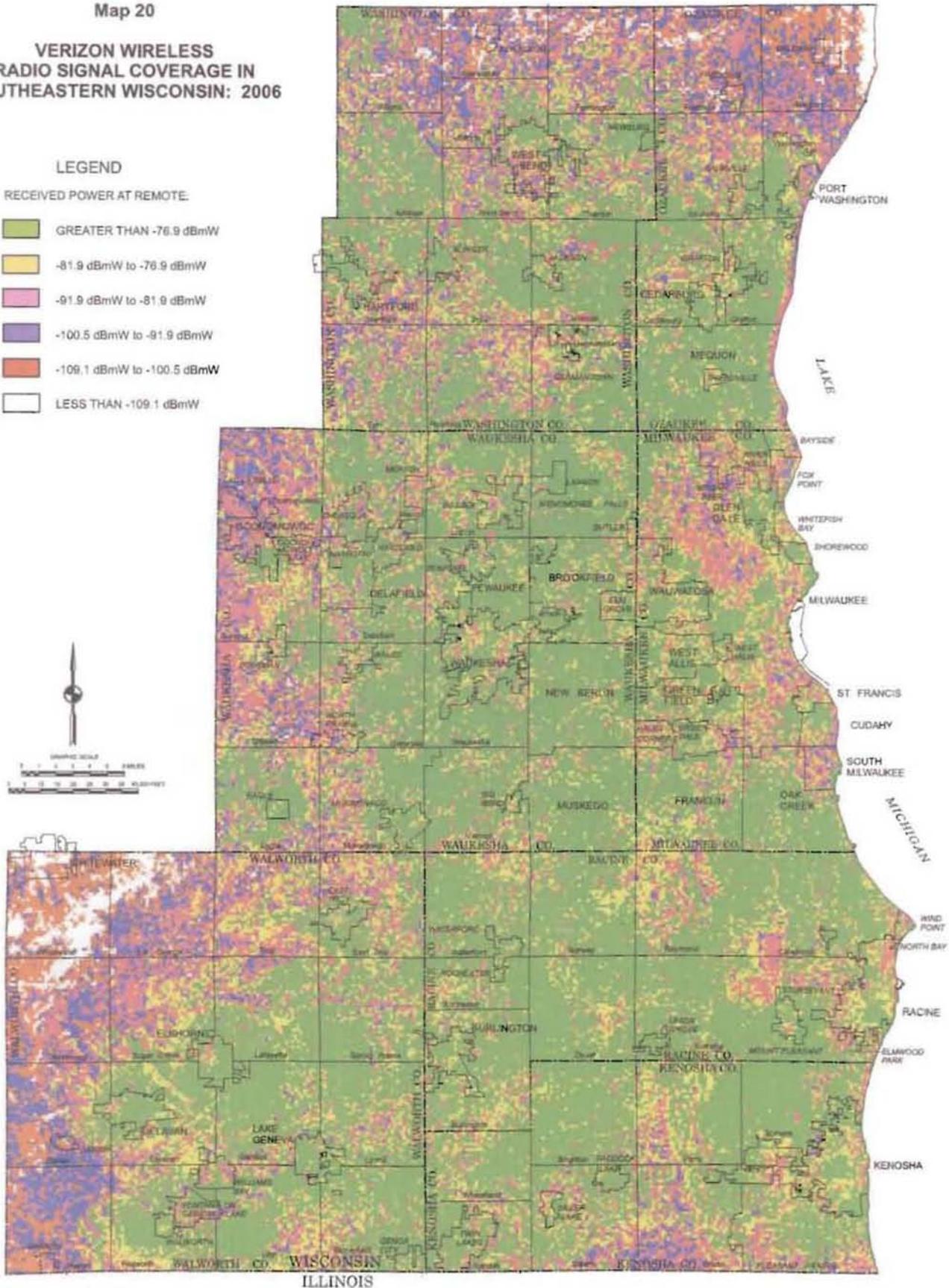
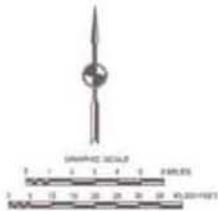
Map 20

**VERIZON WIRELESS
RADIO SIGNAL COVERAGE IN
SOUTHEASTERN WISCONSIN: 2006**

LEGEND

RECEIVED POWER AT REMOTE:

-  GREATER THAN -76.9 dBmW
-  -81.9 dBmW to -76.9 dBmW
-  -91.9 dBmW to -81.9 dBmW
-  -100.5 dBmW to -91.9 dBmW
-  -109.1 dBmW to -100.5 dBmW
-  LESS THAN -109.1 dBmW



Source: SEWRPC.

ILLINOIS

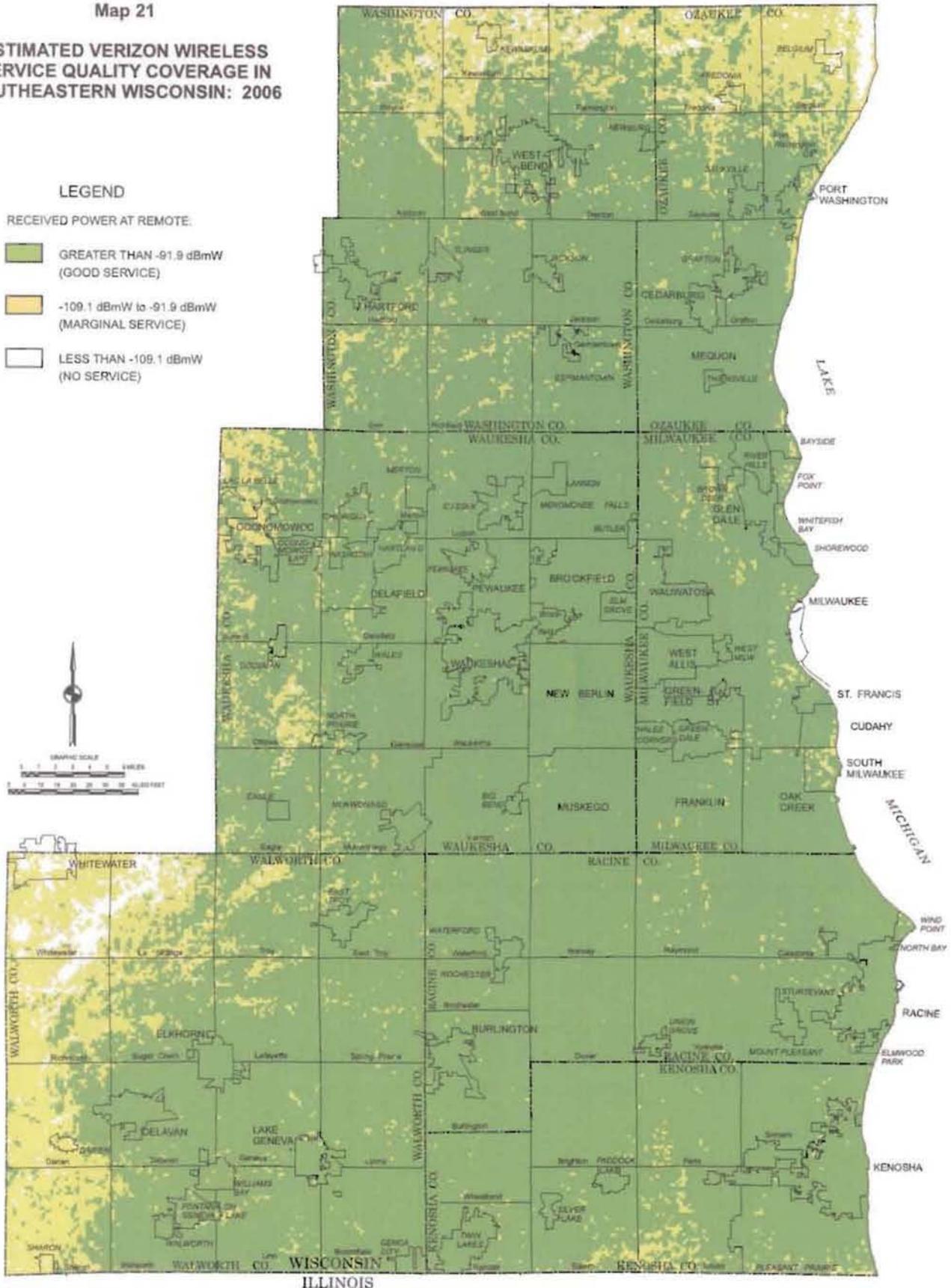
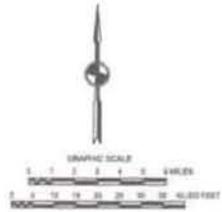
Map 21

ESTIMATED VERIZON WIRELESS SERVICE QUALITY COVERAGE IN SOUTHEASTERN WISCONSIN: 2006

LEGEND

RECEIVED POWER AT REMOTE:

-  GREATER THAN -91.9 dBmW (GOOD SERVICE)
-  -109.1 dBmW to -91.9 dBmW (MARGINAL SERVICE)
-  LESS THAN -109.1 dBmW (NO SERVICE)



Source: SEWRPC.

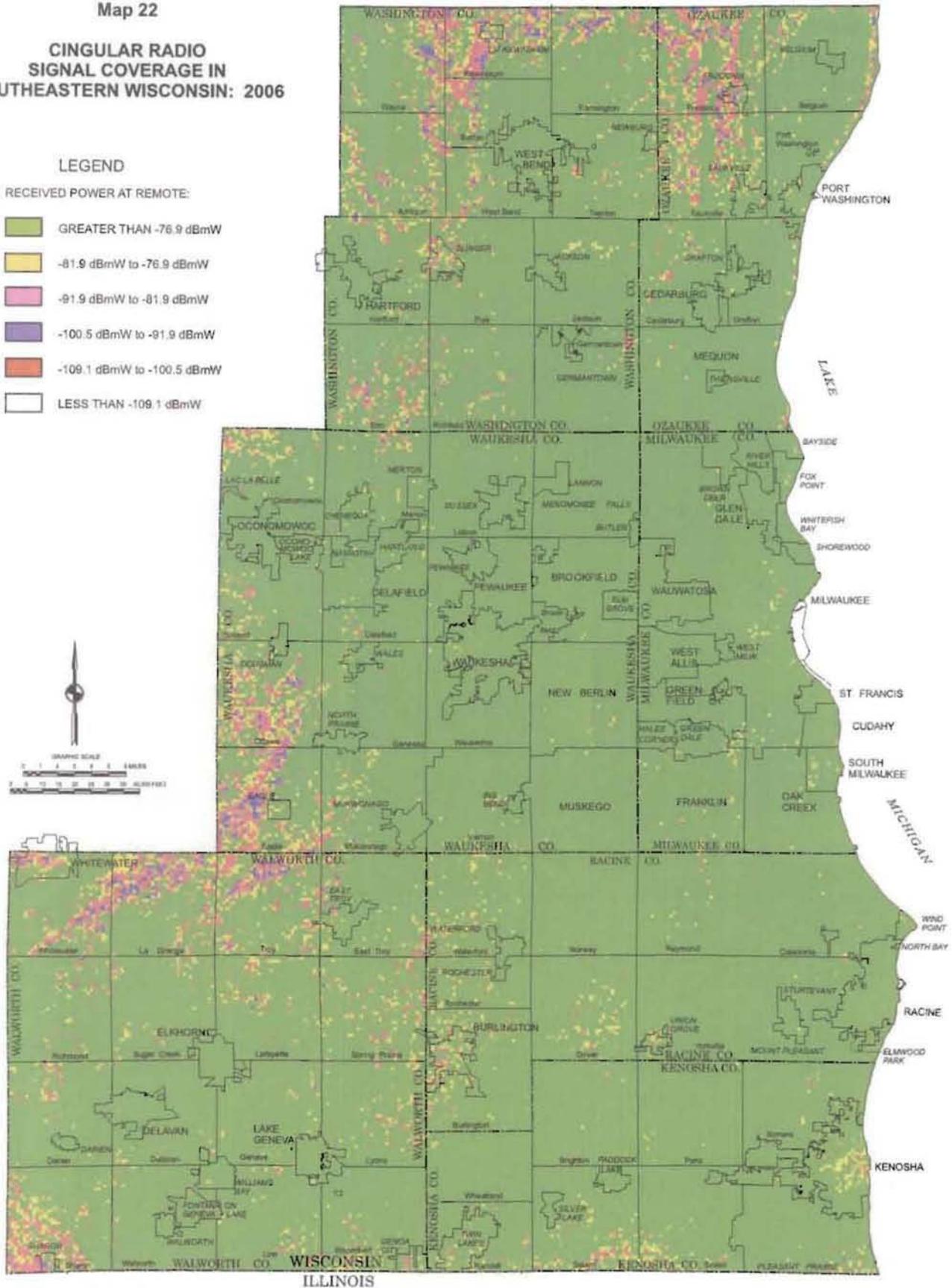
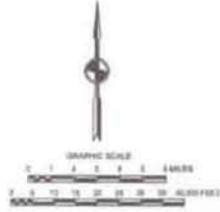
Map 22

**CINGULAR RADIO
SIGNAL COVERAGE IN
SOUTHEASTERN WISCONSIN: 2006**

LEGEND

RECEIVED POWER AT REMOTE:

-  GREATER THAN -76.9 dBmW
-  -81.9 dBmW to -76.9 dBmW
-  -91.9 dBmW to -81.9 dBmW
-  -100.5 dBmW to -91.9 dBmW
-  -109.1 dBmW to -100.5 dBmW
-  LESS THAN -109.1 dBmW



Source: SEWRPC.

ILLINOIS

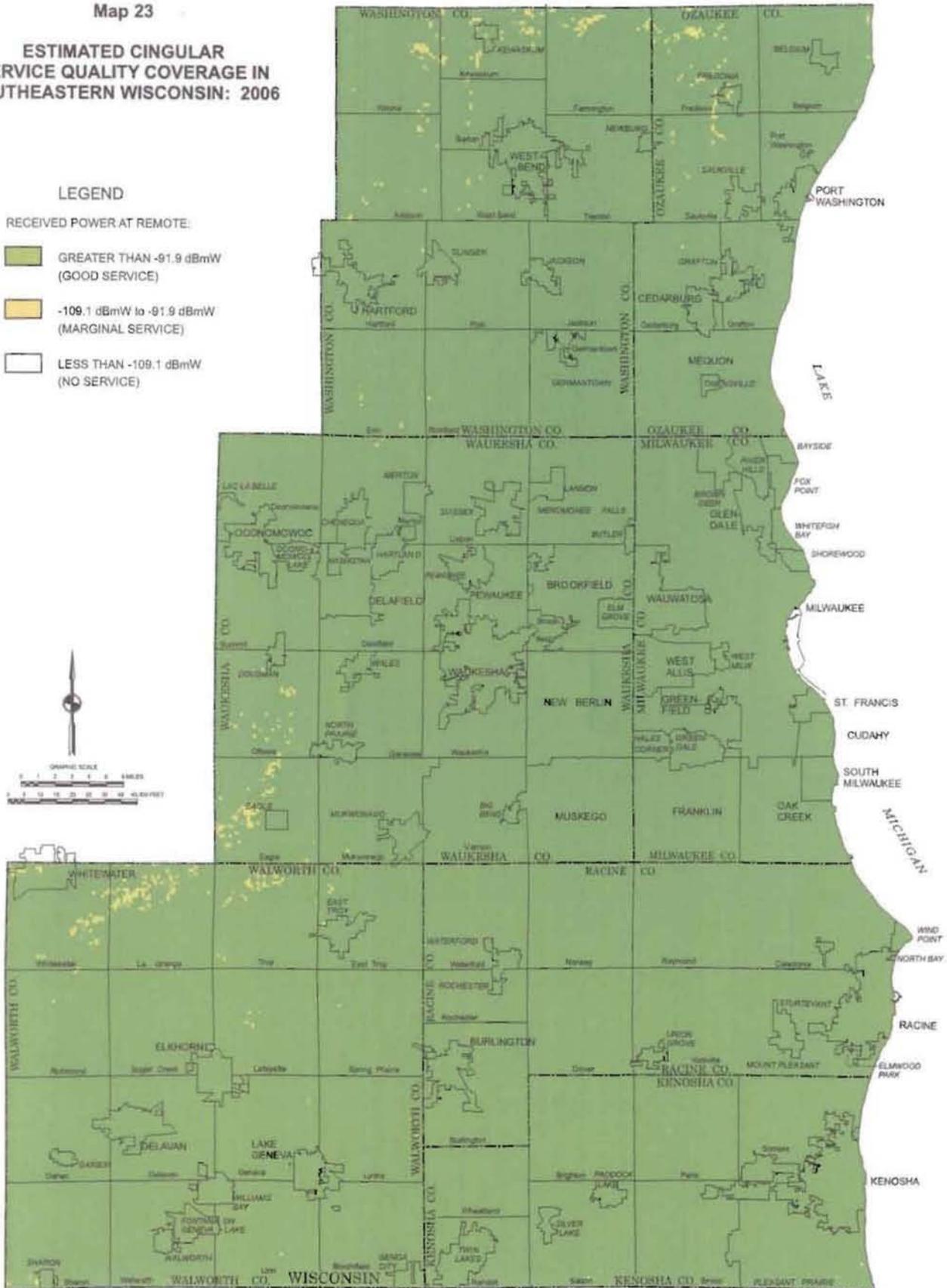
Map 23

**ESTIMATED CINGULAR
SERVICE QUALITY COVERAGE IN
SOUTHEASTERN WISCONSIN: 2006**

LEGEND

RECEIVED POWER AT REMOTE:

-  GREATER THAN -91.9 dBmW
(GOOD SERVICE)
-  -109.1 dBmW to -91.9 dBmW
(MARGINAL SERVICE)
-  LESS THAN -109.1 dBmW
(NO SERVICE)



Source: SEWRPC.

ILLINOIS

Regional Wireless Service

Coverage—U.S. Cellular

U.S. Cellular is the third CDMA network provider within the Region considered. This provider is unique in having no circuit-switched component in its network. Maps 24 and 25 constitute the radio coverage maps for this provider. The maps indicate that there are numerous areas with marginal coverage located throughout the Region, with particular areas of deficiencies in Ozaukee, Washington, and Walworth Counties. The reasons for such scattered marginal performance apparently relates to network layout since U.S. Cellular has one of the largest number of base stations in the Region. U.S. Cellular consistently showed the lowest availability rate of any of the six regional wireless service providers in recent performance monitoring by the Commission.

Regional Wireless Service Coverage—T-Mobile

The coverage provided by T-Mobile, a second GSM wireless carrier operating within the Region, differs significantly from that provided by the first, Cingular, in the marginal nature of its coverage in many areas of the Region. This carrier provides poor or no coverage, in most of Walworth County and southwestern Waukesha County. The service also has significant gaps in Washington and Ozaukee Counties despite the fact that common power levels were used for all providers in radio propagation modeling. The radio signal coverage is shown in Map 26 and the service quality coverage in Map 27.

Summary – Wireless Service Area Inventory

The cellular-PCS wireless service inventory reveals a Region geographically well covered for mobile wireless voice communications. Five of the six regional wireless carriers provide mobile wireless services in all seven counties of the Region. The sixth carrier, T-Mobile, operates in six of the seven counties, with very limited service in Walworth County. Two of the carriers, Cingular and Nextel, have few areas with marginal coverage, and the remaining carriers provide quality service in the majority of the Region.

Data communications performance, however, is far below the objectives for fourth generation mobile wireless technology set forth in Chapter III of this report. The previous seven-county regional wireless network performance inventory recorded download performance of only 178.2 kilobits per second, and upload performance of 63.3 kilobits per second for

2G networks. 3G networks improved to 336.0 kilobits per second for download, and 78.9 kbps for upload. Only the 3G download throughput qualifies for “little broadband” status based on the Federal Communications Commission standard of 200 kilobits per second. Many developed nations of the world have a higher broadband standard of 1.5 megabits per second. All of these performances are far below the throughput objective of 20 megabits per second set forth in Chapter III.

None of the three mobile wireless technologies employed in the Region—GSM, CDMA or iDEN—is suitable for upgrade to 4G performance levels. The two current competing 4G-class mobile technologies are WiMAX (802.16e), an emerging industry standard, and P2P, a proprietary Qualcomm technology now under development. Sprint is the only Regional mobile wireless carrier to announce field trials with WiMAX. It is fair to assume that deployment of any fourth generation mobile wireless network in Southeastern Wisconsin is at least three to four years in the future.

CORE NETWORK INVENTORY

Historically, points of presence (POPs) were the interexchange carriers' (IXC) equivalent of the local telephone company central offices. All long distance calls were routed through the IXC's POP facilities. In a traditional circuit-switched network, local exchange carrier calls would be provided a line—or channel—for the duration of the call. In the packet-switched networks of concern here, the POP provides an Internet connection to a fiber optic cable network capable of transporting the packet set to its destination. For incumbent local exchange carriers, the POP point is often located at a central office. The decentralized nature of packet-switched networks, and the ability of such networks to access outside of the POP locations makes traditional points-of-presence less important to advanced wireless communications systems as described below.

A partial core network inventory of existing points of presence (POP) locations was originally envisioned as a part of the regional telecommunications planning effort. Such POP points constitute important elements of any future broadband wireline or wireless communications system in the Region since they provide fiber optic connection

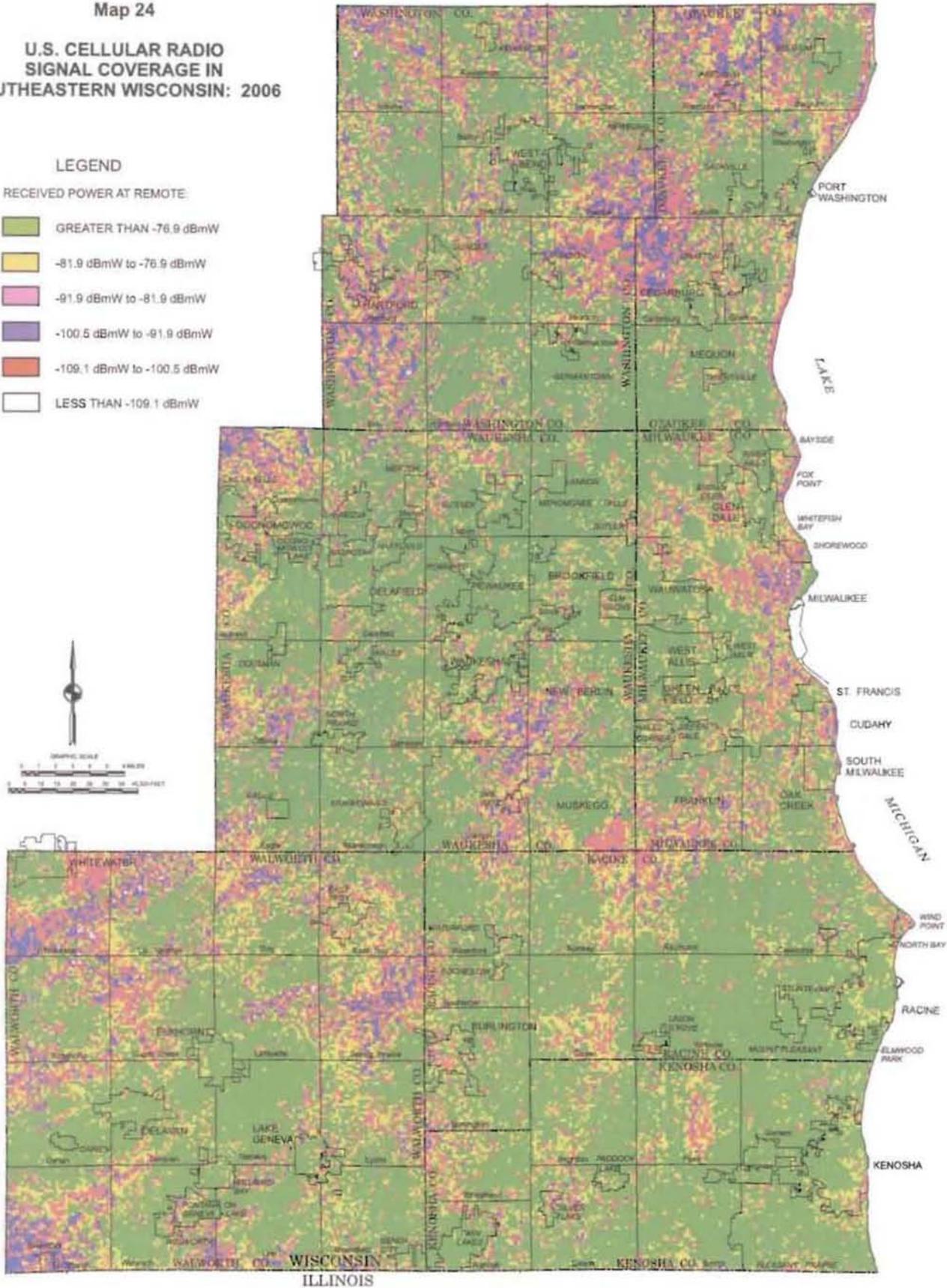
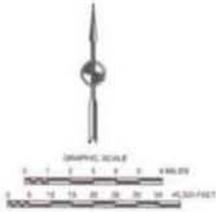
Map 24

**U.S. CELLULAR RADIO
SIGNAL COVERAGE IN
SOUTHEASTERN WISCONSIN: 2006**

LEGEND

RECEIVED POWER AT REMOTE:

-  GREATER THAN -76.9 dBmW
-  -81.9 dBmW to -76.9 dBmW
-  -91.9 dBmW to -81.9 dBmW
-  -100.5 dBmW to -91.9 dBmW
-  -109.1 dBmW to -100.5 dBmW
-  LESS THAN -109.1 dBmW



Source: SEWRPC.